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## TYPE-CERTIFICATE DATA SHEET

**UK.TC.A.00083**

for

**Bristell B23**

Type Certificate Holder

**BRM Aero s.r.o**

Letecká 255

686 04 Kunovice

Czech Republic

Model(s):                   Bristell B23  
                                  Bristell B23-915

Issue:                        1

Date of issue:              01 September 2023

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Note: In this TCDS, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as “UK Regulation (EU) year/number or UK Regulation (EU) No. number/year”.

**Section 1      Bristell B23**

**I. General**

**1. Type / Variant or Model**

Type	Bristell B23
Variant or Model	Bristell B23

**2. Airworthiness Category**

CS-23, Normal Category

**3. Manufacturer**

BRM Aero s.r.o.  
Letecká 255  
686 04 Kunovice  
Czech Republic

**4. Type Certificate Application Date to EASA**

30 May 2017

**5. State of Design Authority**

EASA

**6. EASA Type Certification Date**

07 October 2020

**II. Certification Basis**

**1. Reference Date for determining the applicable requirements**

30 May 2017

**2. Airworthiness Requirements**

CS-23 [Certification Specifications for Normal Category  
Aeroplanes] Amdt. 5, dated 29 March 2017 (See Note 1)  
CS-ACNS, Issue 2, dated 26 April 2019

**3. Special Conditions**

SC-ELA.2015-01 [Lithium battery installations] Issue 1  
SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2

**4. Exemptions**

None

**5. Deviations**

None

**6. Equivalent Safety Findings**

None

## 7. Environmental Protection Requirements

### 7.1 Noise Requirements

See TCDSN UK.TC.A.00083

## III. Technical Characteristic and Operating Limitations

### 1. Type Design Definition

Bristell B23 Master Document List ADxC-73-001-MDL, issue A or later approved revision

### 2. Description

The airplane is a side-by-side single engine two-seater. It has a tapered cantilever low wing configuration with flaps and ailerons. The empennage is conventional. The tricycle landing gear is fixed. The airframe is a lightweight structure comprising aluminium sheets riveted with blind rivets. Airplane is equipped by lithium battery installations. The optional Aircraft Emergency Parachute System (AEPS) is integral part of aircraft design (See Note 1.).

### 3. Equipment

The aeroplane is equipped with an optional airframe installed AEPS.

### 4. Dimensions

#### 4.1 Fuselage

Wingspan (incl. wing tip lights):	9.27m
Height:	2.36m
Length:	6.58m
Wing area:	11.75m <sup>2</sup>

### 5. Engine

#### 5.1 Model

Rotax 912 S3

#### 5.2 Type Certificate

UK.TC.E.00050

#### 5.3 Limitations

Refer to UK.TC.E.00050

### 6. Propeller

#### 6.1 Model

MTV-34-1-A/175-200

#### 6.2 Type Certificate

EASA.P.049

#### 6.3 Number of blades

3

6.4 Diameter

175 cm

6.5 Sense of Rotation

Clockwise, seen from pilot's point of view

## 7. Fluids (Fuel/ Oil/ Coolant)

7.1 Fuel

Refer to approved AFM Section 2.13  
See Rotax Service Instruction SI-912-016

7.2 Oil

See Rotax Operators Manual OM-912 Series  
See Rotax Service Instruction SI-912-016

7.3 Coolant

See Rotax Operators Manual OM-912 Series  
See Rotax Service Instruction SI-912-016

## 8. Fluid Capacities

8.1 Fuel

Total Capacity: 2 x 60 litres  
Usable Capacity: 2 x 59 litres

8.2 Oil

Max. approx. capacity: 3.6 litres

8.3 Coolant System Capacity

Capacity: 2.5 litres

## 9. Air Speed Limitations

EAS≈CAS (IAS)

$V_{S0}$ : 43kts (44kts)  
 $V_S$ : 50kts (51kts)  
 $V_{FE}$ : 81kts (82kts)  
 $V_A$ : 98kts (99kts)  
 $V_C$ : 135kts (136kts)  
 $V_{NE}$ : 156kts (157kts)

## 10. Load Factors

Flaps up  $n=+4/-2$   
Flaps down  $n=+2/+0$

## 11. Maximum Operating Altitude and Temperature

Max. operating altitude above MSL: 14000ft

## 12. Operating Limitations

VFR day  
VFR night See note 1

## 13. Maximum Mass

750kg

## 14. Centre of Gravity Range

from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum:

## 15. Datum

Forward plane of the engine flange to the propeller

## 16. Levelling Means

see AFM Section 6.2 Definitions

## 17. Minimum Flight Crew

1 pilot

## 18. Maximum Passenger Seating Capacity

1 passenger

## 19. Baggage/Cargo Compartments

1 compartment in each wing,  
1 compartment behind the occupants

## 20. Control Surface Deflections

Elevator 19° up, 15° down  
Aileron 24° up, 16° down  
Rudder 30° left and right  
Flap, discrete 0°/10°/25° down

## 21. Wheels and Tyres

Type and dimension of the main wheels:

- wheel rim - BERINGER - 5.00-5"
- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

Type and dimension of the nose wheel:

- wheel rim - BERINGER - 5.00-5"
- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

## IV. Operating and Service Instructions

### 1. Flight Manual

ADxC-73-001-AFM; issue A; dated 27 August 2020 or later approved issue [Basic aircraft G3x avionics]

ADxC-73-070-AFM issue A; dated 22 December 2022 or later approved issue [G500 Avionic package]

**2. Maintenance Manual**

ADxC-73-001-AMM; edition 1.0; dated 18 September 2020 or later approved issue.

**3. Structural Repair Manual**

Not Available

**4. Weight and Balance Manual**

ADxC-73-001-AFM; issue A; dated 27 August 2020 or later approved issue

ADxC-73-070-AFM issue A; dated 22 December 2022 or later approved issue [G500 Avionic package]

**5. Illustrated Parts Catalogue**

not issued

**V. Notes**

1. In order to show the compliance with the CS-23, Amdt. 5, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:
  - a) SC-ELA.2015-01 [Lithium battery installations] Issue 1
  - b) SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2
  - c) ASTM F2316-12 [Aircraft Emergency Parachute System]

**Section 2      Bristell B23-915**

**I. General**

**1. Type / Variant or Model**

Type	Bristell B23
Variant or Model	Bristell B23-915

**2. Airworthiness Category**

CS-23, Normal Category

**3. Manufacturer**

BRM Aero s.r.o.  
Letecká 255  
686 04 Kunovice  
Czech Republic

**4. Type Certificate Application Date to EASA**

03 December 2020

**5. State of Design Authority**

EASA

**6. EASA Type Certification Date**

13 January 2022

**II. Certification Basis**

**1. Reference Date for determining the applicable requirements**

03 December 2020

**2. Airworthiness Requirements**

CS-23 [Certification Specifications for Normal Category  
Aeroplanes] Amdt. 5, dated 29 March 2017 (see Note 1)  
CS-ACNS, Issue 2, dated 26 April 2019

**3. Special Conditions**

SC-ELA.2015-01 [Lithium battery installations] Issue 1  
SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2  
SC-OVLA-div-02 [Glider Towing], issue 1, dated 02-JUN-2015

**4. Exemptions**

None

**5. Deviations**

None

**6. Equivalent Safety Findings**

ELOS-VLA.0991-01 [Fuel Pumps], issue 2, dated 13-NOV-2018

## 7. Environmental Protection Requirements

### 7.1 Noise Requirements

See TCDSN UK.TC.A.00083

## III. Technical Characteristic and Operating Limitations

### 1. Type Design Definition

Bristell B23-915 Master Document List ADxC-73-003-MDL, issue A or later approved revision

### 2. Description

The airplane is a side-by-side, turbocharged single engine two-seater. It has a tapered cantilever low wing configuration with flaps and ailerons. The empennage is conventional. The tricycle landing gear is fixed. The airframe is a lightweight structure comprising aluminium sheets riveted with blind rivets. Airplane is equipped by lithium battery installations. The optional Aircraft Emergency Parachute System (AEPS) is integral part of aircraft design (see Note 1.). An optional aerotow system is installed in the rear part of the fuselage.

### 3. Equipment

The aeroplane is equipped with an optional airframe installed AEPS..

### 4. Dimensions

#### 4.1 Fuselage

Wingspan (incl. wing tip lights):	9.27m
Height:	2.36m
Length:	6.58m
Wing area:	11.75m <sup>2</sup>

### 5. Engine

#### 5.1 Model

Rotax 915iSc3 A

#### 5.2 Type Certificate

UK.TC.E.00050

#### 5.3 Limitations

Refer to UK.TC.E.00050

### 6. Propeller

#### 6.1 Model

MTV-34-1-A/175-200

#### 6.2 Type Certificate

EASA.P.049

6.3 Number of blades

3

6.4 Diameter

175 cm

6.5 Sense of Rotation

Clockwise, seen from pilot's point of view

## 7. Fluids (Fuel/ Oil/ Coolant)

7.1 Fuel

Refer to approved AFM Section 2.13

See Rotax Service Instruction SI-915 i-001

7.2 Oil

See Rotax Operators Manual OM-915 i A Series

See Rotax Service Instruction SI-915 i-001

7.3 Coolant

See Rotax Operators Manual OM-915 i A Series

See Rotax Service Instruction SI-915 i-001

## 8. Fluid Capacities

8.1 Fuel

Total Capacity: 2 x 60 litres

Usable Capacity: 2 x 56 litres

8.2 Oil

Max. approx. capacity: 3.6 litres

8.3 Coolant System Capacity

Capacity: 2.5 litres

## 9. Air Speed Limitations

EAS≈CAS (IAS)

V<sub>SO</sub>: 43kts (44kts)

V<sub>S</sub>: 50kts (51kts)

V<sub>FE</sub>: 81kts (84kts)

V<sub>A</sub>: 98kts (101kts)

V<sub>C</sub>: 135kts (136kts)

V<sub>NE</sub>: <FL110 156kts (159kts)

V<sub>NE</sub>: >FL110 193 kts TRUE airspeed

## 10. Load Factors

Flaps up  $n=+4/-2$

Flaps down  $n=+2/+0$

## 11. Maximum Operating Altitude and Temperature

Max. operating altitude above MSL: 18000ft

## 12. Operating Limitations

VFR day

VFR night See note 1

## 13. Maximum Mass

750kg

## 14. Centre of Gravity Range

from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum:

## 15. Datum

Forward plane of the engine flange to the propeller

## 16. Levelling Means

see AFM Section 6.2 Definitions

## 17. Minimum Flight Crew

1 pilot

## 18. Maximum Passenger Seating Capacity

1 passenger

## 19. Baggage/Cargo Compartments

1 compartment in each wing,

1 compartment behind the occupants

## 20. Control Surface Deflections

Elevator 19° up, 15° down

Aileron 24° up, 16° down

Rudder 30° left and right

Flap, discrete 0°/10°/25° down

## 21. Wheels and Tyres

Type and dimension of the main wheels:

- wheel rim - BERINGER - 5.00-5"

- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

Type and dimension of the nose wheel:

- wheel rim - BERINGER - 5.00-5"

- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

## IV. Operating and Service Instructions

### 1. Flight Manual

ADxC-73-003-AFM [Bristell B23-915 AFM]; revisions A; dated 09 December 2021 or later approved issue

ADxC-73-003-2-AFM [Bristell B23-915 AFM Supplement – Glider Towing]; revision A; dated 09 December 2021

ADxC-73-049-AFM issue B; dated 14 November 2022 or later approved issue [B23-915 G500 Avionic package]

### 2. Maintenance Manual

ADxC-73-003-AMM; edition 1.0; dated 09 December 2021 or later approved issue.

### 3. Structural Repair Manual

Not Available

### 4. Weight and Balance Manual

ADxC-73-003-AFM; revision A; dated 09 December 2021 or later approved issue

ADxC-73-049-AFM issue B; dated 14 November 2022 or later approved issue [B23-915 G500 Avionic package]

### 5. Illustrated Parts Catalogue

not issued

## V. Notes

1. In order to show the compliance with the CS-23, Amdt. 5, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:
  - a) SC-ELA.2015-01 [Lithium battery installations] Issue 1
  - b) SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2
  - c) ASTM F2316-12 [Aircraft Emergency Parachute System]
  - d) ELOS-VLA.0991-01 [Fuel Pumps], issue 2, dated 13-NOV-2018
  - e) SC-OVLA-div-02 [Glider Towing], issue 1, dated 02-JUN-2015

## Section 3 Administration

### I. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
Amdt.	Amendment
C.G.	Centre of Gravity
CAA	Civil Aviation Authority
CR	(European) Commission Regulation
CS	Certification Specification
EASA	European Union Aviation Safety Agency
IAS	Indicated Air Speed
kg	Kilogram
Max	Maximum
min	Minute
Min.	Minimum
MSL	Mean Sea Level
RPM	Revolutions per minute
s/n	Serial Number
sec	Seconds
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
TCH	Type Certificate Holder
VFR	Visual Flight Rules
V <sub>NE</sub>	Never Exceed Speed

## II. Type Certificate Holder Record

<b>TCH Record</b>	<b>Period</b>
<b>BRM Aero s.r.o.</b> Letecká 255 686 04 Kunovice CZECH REPUBLIC  Contracted DOA Holder based on 21.A.2:	Since 07 October 2020.
<b>Aircraft Design Certification GmbH</b> Reichensteinstr. 48 69151 Neckargemünd Germany EASA.21J.411	Since 07 October 2020

## III. Amendment Record

<b>TCDS Issue No.</b>	<b>TCDS Issue Date</b>	<b>Changes</b>	<b>TC Issue and Date</b>
1	01 Sep 2023	This certificate supersedes EASA.A.642. All technical data taken from EASA.A.642 Issue 04.	Issue 1 01 Sep 2023

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